



# Immunize Utah

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Utah Department of Health Immunization Program

Fall 2005

## Immunizations Among American Indian/ Alaska Native Populations in Utah

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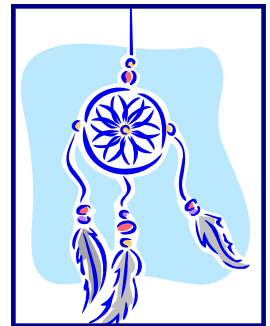
Gaps in the health indicators of the American Indian/Alaska Native (AI/AN) populations, when compared to that of the general population, are staggering. Data collected from 1993 by the Indian Health Service (IHS) determined that the AI/AN infant mortality rate was higher and life expectancy for AI/AN people was lower than that of the general U.S. population. Although more recent data collected by the IHS demonstrates some improvement, the gaps remain significant. Other available research also indicated AI/AN people were dying at younger ages as compared to the general population.

Today, most reports on health disparities among ethnic groups in the US rarely address the health care needs or status of this population. Often, this population is simply categorized as 'other'.

It is widely documented that immunizations are effective in the prevention of certain diseases and

can result in the improvement of a population's health status. However, literature suggests a great need for increasing immunization usage in the AI/AN population. In particular, documentation regarding the immunization status of AI/AN is practically non-existent.

Most publicly available information is from 1985 to 1995, and focuses on the experience of reservation bound AI/AN's and a handful of the 500+ federally recognized tribes in the United States. Although some childhood immunization rates are well documented in IHS literature and publications, there appears to be no documentation on immunization rates among the remainder of the AI/AN population, adolescents and adults. Perhaps the mortality data is indicative of the great need.



For example, the IHS 1999 published report "Trends in Indian Health" found 22% of the deaths among AI/AN, between 1998 and 1999, were attributed to pneumonia and influenza - making this community 1.7 times more likely to die from these diseases than the general population. This same report identified the same diseases as the fifth leading cause of infant death for all of IHS Service Areas.

The Phoenix Area 'Reservation State', which includes Nevada, Utah and Arizona, reported similar statistics. Pneumonia and influenza accounted for 6.1% (fourth highest leading cause of death) of infant deaths. Death rates for pneumonia and influenza ranked as the fourth highest of all IHS areas at 29.5/100,000. This is twice that of the general U.S. population and well above the entire IHS program average rate of 20.2/100,000. Additionally, a study conducted by the Utah Department of Health found these diseases to be the third leading cause of death for Utah AI/AN elders age 65 and older.

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# Influenza Clinics and Prefilling Syringes: Use Caution

## General Recommendation

The National Immunization Program (NIP) of the Centers of Disease Control and Prevention and the Utah Immunization Program strongly recommend that providers draw vaccine only at the time of administration to ensure the cold chain is maintained. Prefilling syringes is strongly discouraged due to the following possible serious consequences:

- Administration errors
- Inappropriate storage conditions leading to vaccine wastage
- Bacterial contamination and growth
- Reduction in vaccine potency
- Quality control and patient safety problems (*If you do not draw up the vaccine yourself, you cannot be sure of the composition and sterility of the dose you are administering.*)

## Prefilling Syringes for Influenza Clinics

Although predrawing vaccine is generally discouraged, **a limited amount of vaccine may be pre-drawn in a mass immunization setting if** the following procedures are followed:

- Only one vaccine type is administered at the clinic.
- Vaccine should **NOT** be drawn up in advance of arriving at the clinic site.
- Vaccine should remain in the original manufacturer packaging during transport.
- Inactivated influenza vaccine must be packaged and transported appropriately within NIP's guidelines; monitored and maintained at 35°-46°F (2°-8°C).
- Each healthcare worker should draw up a small quantity of vaccine to meet the initial needs of the clinic—no more than 1 vial or 10 doses.
- To conform to good administration practices, each healthcare worker should administer only the vaccine he or she drew up.
- Patient flow should be monitored to avoid drawing up unnecessary doses.
- At the end of the clinic day, any remaining vaccine in syringes should be discarded. Vaccine that has been drawn up and not administered may **NOT** be used on subsequent days.

For more information:

Utah Immunization Program (801) 538-9450.  
Vaccine Storage and Handling Toolkit: <http://www2a.cdc.gov/nip/isd/shtoolkit/content.html>

## CDC Announces No. 1 Error in Vaccine Storage & Handling

According to the Centers for Disease Control and Prevention, National Immunization Program, the Number one error in storage and handling is:

*Documenting out-of-range temperatures on vaccine temperature logs and not taking action.*

This error has also been discovered in Utah clinics. The consequences have been very costly to providers and the Utah Immunization Program. Don't be guilty of this error in your practice. Just documenting temperatures is not enough. Acting on the information is even more important. Make sure all staff knows recommended storage temperatures and procedures to follow if they go out of range.

Following are guidelines to implement when temperatures are discovered out of range:

- Take immediate action!
- Safeguard your vaccines by moving them to another unit or location.
- Do not use the affected vaccines until viability has been confirmed.
- Notify your supervisor whenever you have an out-of-range temperature. (Also, alert the supervisor if the temperature is running borderline too warm or too cold, before there is a problem.)
- Follow your emergency handling plan and, if necessary, call a repair company.

VFC Providers, please contact the Utah VFC Program for assistance and to report the problem. We understand and want to help!

Check out the link below to CDC's new vaccine storage and handling tool kit and view the [video](#) which lists the top ten errors in storage and handling:

<http://www2a.cdc.gov/nip/isd/shtoolkit/content.html>

# New Control Measures for Pertussis

## Bureau of Epidemiology Utah Department of Health

Pertussis (whooping cough) is a highly contagious bacterial infection of the respiratory tract. Pertussis is characterized by spasms of coughing, an inspiratory whoop, and sometimes post-tussive vomiting. This vaccine-preventable disease often lasts many weeks, and may cause complications among infants and children. Incidence rates of reported cases of pertussis have been rising in the United States since 1990, despite increases in vaccination coverage among children. Similarly, reported cases of pertussis are also increasing in Utah. Reasons for this increase are unknown. Better reporting, enhanced laboratory testing, and improvements in diagnosis may lead to an increase in reported cases. Despite the uncertainty surrounding the cause of the increase of the overall reported cases, one trend is clear: cases reported among adults and adolescents in the United States are increasing at a disproportionate rate.

Symptoms of pertussis are often more mild in adults than in children, and may even be indistinguishable from other more common upper respiratory illnesses. However, transmission of the illness still occurs. Adults are often the reservoir of illness to children, including unimmunized and under-immunized children. Households with multiple cases of pertussis often stem from an infected adult within the family.

From 2001 to 2003, Utah pertussis rates were higher than the U.S. average. In 2003, Utah's rate of disease was nearly twice as high as the national average (5.4 cases per 100,000 Utah person-years vs. 2.9 cases per 100,000 U.S. person-years). In 2005, pertussis rates in Utah have been highest among children age 10 to 18 years.

Because vaccination is the most effective strategy in the control of pertussis, a new vaccine, called Tdap, was recently developed. Two manufacturers have developed Tdap vaccines licensed by the Food and Drug Administration that target adolescents and adults at risk for pertussis. Because the vaccines are effective in this population, they provide an opportunity to impact the population that is currently reported to be the most affected by pertussis, and may pro-

vide an important mechanism to interrupt transmission and decrease overall incidence of the disease. Boostrix is licensed for use as a single dose booster immunization among children and adolescents age 10 to 18 years. Adacel is approved for use as a single dose in people age 11 to 64 years.

The Advisory Committee on Immunization Practices (ACIP) recommends children who are 11 to 12 years old and have completed the recommended childhood vaccination series receive Tdap, if a Td booster has not yet been administered. Also, children who are 13 to 18 years old who have completed the recommended childhood vaccination series may receive a Tdap dose if they have not yet received a Td booster. Tdap is not indicated for use for persons who have not completed the recommended childhood vaccination series, or for use as a primary series dose.

Until now, children have often received the last scheduled dose of a pertussis vaccine at 4 to 6 years of age, and immunity to pertussis through vaccination is known to wane over time. While the impact of the new vaccine on disease incidence has yet to be seen, historically vaccines have proven to be instrumental in the control and prevention of many types of diseases, including pertussis. Because these vaccines are now available to adolescents and adults, they are likely to play an important role in more effectively preventing pertussis in the community.

## Immunization Requirements 7th Grade Entry 2006-2007

Beginning with the 2006-2007 school year, a student entering the 7th grade must have proof of receiving the following immunizations:

- 3 Hepatitis B
- 1 Tetanus/Diphtheria (Td) booster
- 1 Varicella - proof of previous history is acceptable

This is in addition to other immunizations which should have already been completed (i.e. MMR, Polio).

Pertussis is not required, however, new adolescent Td/Pertussis (Tdap) vaccines can be given to satisfy the Td requirement.

## **Immunizations Among AI/AN Populations in Utah**

Other data available in Utah suggested that 9.8% of deaths among AI/AN's aged 0-44 years were attributed to pneumonia and influenza. More specific rates in Utah are not presently available.

In order to understand the barriers this population faces for immunizations, in addition to other health indicators, the history of health care access should be addressed.

American Indian (AI) health care can be linked to the United States as far back as 1802, when U.S. Army physicians assumed responsibility for AI care in exchange for land. It was the beginning of many generations of health disparities for AI, mostly stemming from lack of cultural understanding.

Historically, the United States government attempted to provide high quality health care to all AI/AN. In 1824, the Bureau of Indian Affairs (BIA) was established in an effort to support tribes in governing their own communities. Despite efforts made by the BIA, AI health care remained inferior compared to the general population. In 1955, the BIA transferred responsibility to the Public Health Service, who, under the direction of the Health and Human Services Department, established the Indian Health Service.

The Indian Health Services deals directly with Indian health through its twelve 'Reservation States.' The IHS service population is identified from tribal-patient registration systems. This population is identified as those patients who receive direct or contracted health services from IHS or tribally operated programs throughout the U.S. The Phoenix Area Office is the IHS office that serves the 'Reservation State' of Arizona, Nevada and Utah. There is only one direct service health facility or service unit in Utah. It is located on the Uintah & Ouray Indian Reservation in North Eastern Utah.

There are several barriers to accessing services AI/AN experience as a result of this complex system. Geography is one of those barriers. Most AI/AN communities are located in the rural and frontier parts of Utah, where services are limited. Often, there is long travel involved to gain access. Sometimes this may involve a drive of over 300 (3-4 hours) miles to get to services. This can be very problematic if transporta-

tion is an issue. Working with the community outreach or CHR's to plan a community immunization event is one alternative to narrow this gap. Another involves the development of culturally specific and appropriate immunization education materials. Health is perceived as not only a physical sense of well being for the individual, but involves community as well. The outreach and CHR workers can be a tremendous support in achieving this balance.

How services are accessed is another barrier. There is more focus on community and family as opposed to individual focus among AI/AN's. Often there are missed opportunities to provide services because appointments are made on an individual basis. Immunizations are a perfect example. Collaborating with tribal and community outreach workers to offer immunizations to family members when they are in the clinic is one way to address this issue. This may involve some analysis and re-thinking current office practices and delivery services.

Tracking immunization information is another challenge. AI/AN's are a very mobile population and travel frequently between reservations and urban settings for various reasons; employment, education, family. This can often involve travel between one state and another, as state boundaries are not often recognized as boundaries for services. Utah has several tribes located within Utah and bordering states. Some tribal members may travel to tribal providers who are out of the state. Data is difficult to locate. Many times there is no data to report, because there is no data recorded or the recorded data is not shared among the tribal provider community, the private provider community and the various state agencies. Partnering with these provider networks is another potential opportunity to narrow the gaps.

Finally, due to the complexity of the current health system and the federal responsibility placed on the health care system for AI/AN's, trust for quality health care service delivery becomes paramount. Building relationships with this population is labor intensive and time consuming. Commitment over time to their communities is vital to improvement of health status. Involving their community leaders and elders in the planning stages of immunization campaigns or programs is crucial. Open communication between programs, the community, and providers is key to fostering trust among these communities.

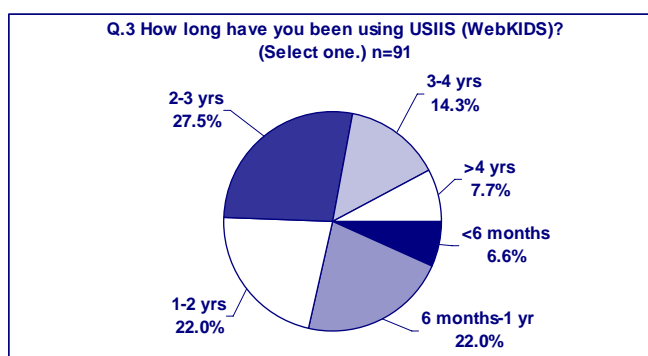
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# 2005 USIIS User Online Survey

## Janel Jorgenson, BS Provider Relations Utah Immunization Program

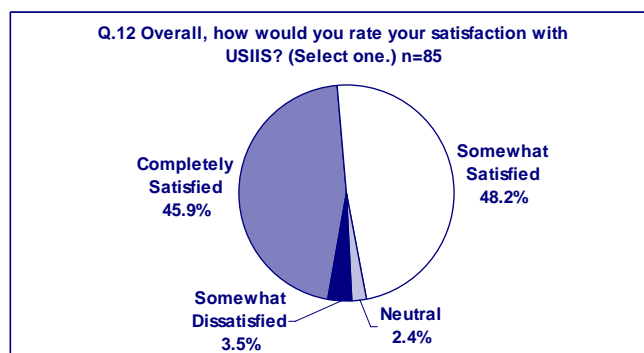
The Utah Statewide Immunization Information System (USIIS) conducted a survey earlier this year as part of an effort to improve the level of services for users throughout the state. The survey was conducted online for the first time and was offered to users initially over a five-week period. Users were given the option to take the survey whenever they logged on to USIIS/Webkids. The response rate for the survey was very low at the end of five weeks, so it was extended for one additional week. In the end, the survey response rate for distinct, active users during the six weeks was just under 15%. Information on the survey was gathered from only 91 users. The majority of the 91 users that took the survey are located in private provider offices in Salt Lake County. Because there was such a small response to the online survey, results from this year's survey cannot be used to generalize about the entire USIIS User population. However, these results may still be beneficial for improving USIIS.

The Online User Survey was designed to obtain information about usage patterns and levels of satisfaction with USIIS functions among users. The majority of users (49.5%) have been using the registry for at least one to three years.



Most clinics reported that 1-2 staff members use USIIS in their office and they log on to USIIS multiple times per day. Most users (58.9%) work in clinics that give between 1 to 250 immunizations a week and 63.7% of users said they submit data to USIIS by direct, manual entry into the system.

Users were asked to identify which USIIS functions they use the most and which functions they rarely or have never used. The functions identified as the most used are the Immunization History & Input (85.4%) and the Patient Search (82%). However, only 45.2% of users indicated that they use the Forecast Report, which can be a valuable tool in determining patients' immunization schedule. Users also stated that they are very satisfied with the functions most frequently used.



Users listed the Comments & Physician Input and the CASA Download as the least used USIIS functions. The main reasons users said they did not use a particular function related to not being familiar with the function or not enough training. The Immunization Program is working to address the lack of training for users and regional representatives have been assigned to each provider office to provide more training.

Users were also asked to rate their level of satisfaction with customer support they had received from the USIIS Customer Support Helpline and to rate their overall satisfaction with USIIS. Two-thirds (66.7%) of users who had called the HelpLine in the past 12 months said they were completely satisfied with the customer support. The majority of users said they were either completely (45.9%) or somewhat satisfied (48.2%) with USIIS overall.

Many comments and suggestions were made on how we can improve USIIS, its functionality, and our customer support. These observations are currently being evaluated and will be used to make improvements for all users of USIIS.

# Barriers to College Vaccine Requirements and Recommendations

**Carmine McDonald, RN**  
**Student Health Services**  
**University of Utah**

On August 12, 2005, an educational and fact-finding meeting was organized by the Committee on College Vaccine Recommendations, a sub-committee of the Utah Adult Immunization Coalition (UAIC). The Committee included representatives from various college and university student health centers in Utah. Participants discussed issues and challenges related to immunizing college students. This type of venue presented an opportunity for health care professionals to network and share how various schools manage this important issue, and address some of the barriers to vaccinating college students. Following are some of the issues discussed by the Committee.

The American College Health Association (ACHA) has long advocated vaccine requirements for college entry. Vaccine requirements for colleges and universities are developed based on recommendations from the Centers for Disease Control and Prevention (CDC) and Advisory Committee on Immunization Practices (ACIP). Although vaccine mandates are based on sound public health policy, they are often challenging for higher education to implement.

For example, it is often perceived in higher education institutions that any added admission requirement can be an obstacle to enrollment. Since much of the funding for state institutions is based on enrollment numbers, state schools may become adversely affected if decreased enrollment occurs.

A second barrier, especially for smaller college health centers, is the cost of purchasing expensive vaccines in a volume that is sufficient to meet the needs of enrolling students. Often, smaller college health centers cannot compete with quantity based or multi-contract pricing. In addition, the lack of sufficiently trained staff to administer the vaccines to large groups of students can be problematic for smaller student health centers.

In general, the lack of accurate information about vaccines, vaccine safety and public health requirements continues to be a significant concern when addressing barriers to vaccination, whether in

children or college age students. Inaccurate information or the lack of awareness may lead some people to oppose vaccination.

There are allowances for individuals who oppose vaccination in grades K-12. These include exemptions for medical contraindications, religious or "personal" beliefs. The intent of the personal exemption is to allow anyone who philosophically disagrees with vaccines to be exempt from school vaccine requirements. In college vaccine requirements, however, there is no allowance for exemptions, other than for medical reasons.



Finally, universities and colleges that have vaccine requirements typically follow current CDC and ACIP recommendations. Conflicts regarding valid immunization documentation can arise when healthcare providers who are not familiar with these recommendations use alternative vaccination schedules or dosing techniques.

The UAIC and the Committee for College Vaccine Recommendations have established a goal to help reduce these barriers. By providing increased community education and recommending a uniform higher education vaccine requirement that is carefully planned and scientifically-based, this goal is achievable.

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## ***Immunizations Among AI/AN Populations in Utah***

The roots of Indian health run deep in the development and colonization of this country. Due to the complexity and constant change of this system, gaps in the health status of this population gained a foothold as a cultural characteristic and thus set the AI/AN community far apart from the general population. Strategies to narrow those gaps must be addressed with community involvement as much as possible to address those cultural characteristics.

## Kudos To Providers!

The Utah Immunization Program is proud to recognize outstanding efforts in immunizing Utah's children. We are pleased to recognize the following providers for rates shown during recent immunization assessments from April through September 2005 using the Clinic Assessment Software Application (CASA).



For achieving the goal of immunizing 90% or more of two-year-olds with 4 DTaP, 3 Polio, 1 MMR, 3 Hib & 3 Hepatitis B:

**U of U Pediatric Clinic**  
**Margaret A. Kluther, MD**

For achieving the goal of immunizing 80% or more of two-year-olds with 4 DTaP, 3 Polio, 1 MMR, 3 Hib & 3 Hepatitis B:

**Willow Creek Pediatrics - Draper**

For achieving the goal of immunizing 70% or more of two-year-olds with 4 DTaP, 3 Polio, 1 MMR, 3 Hib & 3 Hepatitis B:

**IHC Sevier Valley**  
**IHC Manti**



## Mark Your Calendars! 2005 Events

### USIIS User Group Meetings

Lunch or breakfast is provided.

Date: November 10, 2005; 7:00 - 8:30 a.m.

Location: Wilkinson Aud., Cottonwood Hospital  
5770 South 300 East  
Murray

Surveillance of Vaccine Preventable Diseases  
Satellite Conference  
December 8, 2005

More information will be available later.

For more information regarding User Groups Meetings or to establish a user group in your area, please contact Janel Jorgenson at (801) 538-9991.

## Vaccine Storage & Handling Crossword

### Across

1. AKA FluMist must be stored in the freezer.
7. Ensure this employee is trained in vaccine storage and handling (abbreviated).
8. \_\_\_\_\_ approval is required before transferring or transporting VFC vaccines.
9. Still viable if fridge temperatures go too cold.
10. Remove this refrigerator fixture and replace it with jugs of water.
11. Post DO NOT \_\_\_\_\_ signs at refrigerator and freezer outlets and circuit breakers.
12. Check and record temperatures \_\_\_\_\_ daily.
15. To ensure vaccine viability, maintain the cold \_\_\_\_\_ from vaccine manufacturer to patient.
16. To avoid expired vaccines, order sensibly and do not over \_\_\_\_\_.



### Down

1. Protect \_\_\_\_\_ virus vaccines from heat and light.
2. The route MCV4/Menactra is administered (abbr).
3. This heat-sensitive vaccine loses potency easily and must be kept frozen.
4. When the fridge door \_\_\_\_\_, be sure to close it tightly.
5. Store it in the refrigerator door or at room temperature, but not in the freezer.
6. Do not prefill these until immediately before they are needed.
13. \_\_\_\_\_ packs in the freezer and water bottles in the fridge doors maintain temperatures.
14. If a possible spoilage occurs, \_\_\_\_\_ not assume vaccines cannot be salvaged.

**VFC Providers, fax this completed puzzle to Linda Jenkins at (801) 538-9322 and receive a free gift in the mail.**

Name (Please Print): \_\_\_\_\_

Provider Name: \_\_\_\_\_

VFC Pin No.: \_\_\_\_\_ Phone: \_\_\_\_\_

*Answers on page 8*



P.O. Box 142001  
 288 North 1460 West  
 Salt Lake City, UT 84114-2001

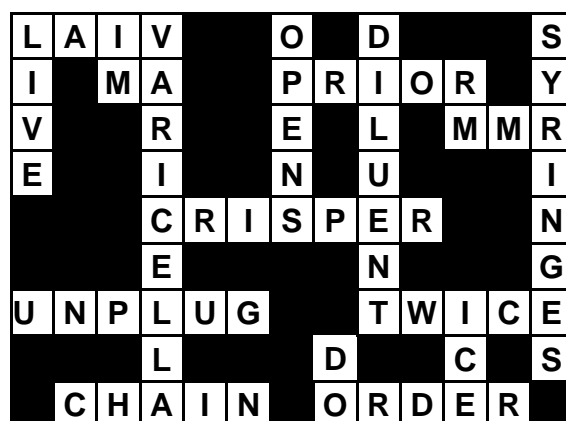
Return Service Requested



Check out our web-site!

[www.immunize-utah.org](http://www.immunize-utah.org)

## Answers to Vaccine Storage & Handling Crossword Puzzle



Remember to send us S&H tips on what works for your clinic and ideas on how we can improve our S&H training. Fax or e-mail S&H questions, comments, and ideas to: Linda Jenkins  
 PH: (801) 538-9924 Fax: (801) 538-9322 e-mail: [lindajenkins@utah.gov](mailto:lindajenkins@utah.gov).